REMARKS

I. STATUS OF THE CLAIMS

Claims 167-169, 171, 172, 174, 175, 177, 178, 180-182, and 185-308 are now pending in this application. No claims are amended herein.

Applicants acknowledge that the Examiner has withdrawn the provisional rejection under the judicially created doctrine of obviousness-type double patenting over copending Application No. 09/627,055.

II. OBVIOUSNESS-TYPE DOUBLE PATENTING REJECTIONS

The Examiner has maintained the provisional rejection of claims 167-169, 171, 172, 174, 175, 177, 178, 180-182, and 185-308 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-9, 12-14, 16-23, 28-41, 44-46, 48-55, 60-70, and 72 of copending Application No. 10/022,253. Final Office Action at 2.

Applicants respectfully disagree with the Examiner. The present claims of copending Application No. 10/022,253 are directed to non-rinse compositions, whereas the claims of the present application are directed to shampoos and conditioners, *i.e.*, rinse compositions. Contrary to the Examiner's suggestion (*see id.*), these are express structural limitations in the body of the claims and not mere preamble recitations.

Nevertheless, in order to advance the prosecution of this application, Applicants have filed concurrently herewith a Terminal Disclaimer over copending Application No. 10/022,253. Accordingly, Applicants respectfully submit that this ground for rejection should be withdrawn as moot.

III. REJECTIONS UNDER 35 U.S.C. § 103(a)

(A) The Examiner has maintained the rejection of claims 167-169, 180-182, 185-208, and 284-307 under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 6,013,722 (*Yang et al.*) for the reasons disclosed at pages 4-6 of the Final Office Action. Applicants respectfully traverse this rejection for at least the reasons of record and for the additional reasons set forth below.

Applicants' invention is not obvious over *Yang et al.* As an initial matter, to establish a *prima facie* case of obviousness, three basic criteria must be met. These criteria include that there must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference, and that the prior art reference must teach or suggest all the claim limitations. *See* M.P.E.P. § 2143. Applicants submit that the Examiner has failed to meet these basic criteria for at least the following reasons: (1) *Yang et al.* does not teach or suggest all of the claim limitations and (2) no motivation exists to achieve the recited claim limitations. *See* M.P.E.P. §§ 2143.01 and 2143.03

(1) YANG ET AL. FAILS TO TEACH OR SUGGEST "A HAIR STYLING" COMPOSITION.

Applicants maintain that *Yang et al.* does not teach or suggest a hair styling composition, let alone a reshapable hair styling composition. *Yang et al.* is merely directed to non-whitening emulsion pressure sensitive adhesives suitable only for labels, decals, and the like. Col. 2, lines 20-32, col. 7, lines 16-20. Applicants also maintain that there is no motivation in *Yang et al.* to apply its adhesives to a hair styling composition. It is well known that not all pressure sensitive adhesives are suitable for

hairstyling compositions. Further, the mere fact that a person of ordinary skill in the art could have made the necessary combination is not evidence of a motivation to do so. M.P.E.P. § 2143.01. The Examiner has not denied these points, rather the Examiner has argued that the preamble is not a limitation upon the claims.

Applicants have provided three independent reasons as to why Applicants' preamble of claims 167-169, 180-182, 185-208, and 284-307 is a limitation upon the scope of the claims that distinguishes the claims over *Yang et al.*

(1) A preamble is a limitation when one could not identify the scope of the claims without it. M.P.E.P. § 2111.02. The identification of a specific class of (meth)acrylic polymers and a surfactant in the body of each rejected claim cannot alone define Applicants' invention. *See Rowe v. Dror*, 42 U.S.P.Q.2d 1550, 1553 (Fed. Cir. 1997).

(2) A preamble is a limitation when there is repetition of the language in the body of the claims. *Gerber Garment Technology Inc. v. Lectra Systems Inc.*, 16 U.S.P.Q.2d 1436, 1441 (Fed. Cir. 1990). Here the preamble of the rejected claims recites "a reshapable hair styling composition" and the body recites both "a reshapable effect," which is defined by the specification as a particular effect achieved with hair, and "shampoo," which is a specific type of hair styling composition.

(3) A preamble is a limitation when a "review of the entirety of the [record] [gives] an understanding of what the inventors actually invented and intended to encompass by the claim." M.P.E.P. § 2111.02; *see also*, *Corning Glass Works v. Sumitomo Electric U.S.A. Inc.*, 9 U.S.P.Q.2d 1962, 1966 (Fed. Cir. 1989). Here, Applicants' specification makes it abundantly clear that Applicants did not invent all compositions that comprise the recited polymers, rather only those compositions that are (1) hair styling

compositions in the form of (2) a shampoo (with respect to the rejected claims), which gives hair (3) a reshapable effect.

In response, the Examiner has reiterated the position that "[a] composition is a composition regardless of its use" and that "[t]he Examiner disagrees that the instant preamble gives life, meaning, and vitality to the instant claims." Final Office Action at 3. Applicants respectfully submit that Applicants' claims are like those previously reviewed by the Courts and found to be structural limitations upon the claims.

In *Corning Glass Works v. Sumitomo Electric U.S.A. Inc.*, 9 U.S.P.Q.2d 1962, 1965 (Fed. Cir. 1989), the claim recited an optical waveguide comprising a cladding and a core. In holding the preamble a limitation, the Court recognized that there was more to an optical waveguide than simply identifying a cladding and a core, because not all core/cladding combinations (optical fibers) worked as an optical waveguide. *Id.* at 1966. The Federal Circuit concluded that "to read the claim in light of the specification indiscriminately to cover all types of optical fibers would be divorced from reality. The invention is restricted to those fibers that work as waveguides as defined in the specification, which is not true with respect to fibers constructed with the limitations of paragraphs (a) and (b) only." 9 U.S.P.Q.2d at 1966. Applicants submit that a person of ordinary skill in the art, reading Applicants' specification, would also recognize that not all compositions are the same and, in particular, not all compositions can act as hair styling compositions. Contrary to the Examiner's suggestion, not all pressure sensitive adhesive compositions are suitable for hair.

In *Kropa v. Robie*, 88 U.S.P.Q. 478, 479 (C.C.P.A. 1951), the claim recited an abrasive article comprising abrasive grains and a hardened binder. In holding the

preamble a limitation, the Court recognized that the preamble gave life and meaning to the claim "for it is only by that phrase that it can be known that the subject matter defined by the claims is comprised as an abrasive article. Every union of substances capable inter alia of use as abrasive grains and a binder is not an 'abrasive article.' The term calls forth a distinct relationship between the proportions of grain and resin comprising the article." *Id.* at 481. Applicants submit that a person of ordinary skill in the art, reading the body of the claim would similarly recognize that not every combination of a (meth)acrylic polymers and a surfactant constitutes a hair styling composition, and therefore, the preamble is a limitation.

Applicants submit that that the Examiner cannot distinguish the facts surrounding the present claims and application against the facts underlying the *Corning Glass Works* and *Kropa* decisions. In view of these prior applications of the law regarding preambles, "hair styling composition" is a limitation that is "necessary to give life, meaning, and vitality" to Applicants' claims and which *Yang et al.* does not explicitly or inherently teach.

(2) YANG ET AL. FAILS TO TEACH OR SUGGEST "AT LEAST ONE SURFACTANT".

Applicants maintain that the Examiner has failed to establish whether *Yang et al.* expressly or inherently discloses "at least one surfactant," as required by claims 167-169, 180-182, 185-208, and 284-307. The Examiner has argued that *Yang et al.* teaches "surfactants as additional ingredients." Final Office Action at 4. The Examiner goes on to state that *Yang et al.* is not limited to its exemplification or preferred embodiments. *Id.*

Applicants respectfully disagree with the Examiner's interpretation of *Yang et al.*'s teachings. Applicants agree that *Yang et al.* discloses the use of surfactants; however, that use is severely limited. *Yang et al.* only teaches the use of surfactants in the emulsion polymerization process from which the (meth)acrylic adhesive is a produced. Col. 4, line 65 - col. 6, line 26. Specifically, *Yang et al.* teaches the combination of various monomers and other reactants with a possible surfactant, which are then reacted to form the polymer. Col. 5, line 56- col. 6, line 26. Based on this alone, a person of ordinary skill in the art would have no basis to believe that *Yang et al.* discloses the addition of a surfactant to a (meth)acrylic polymer to form a composition. It only teaches the use of a surfactant as a reactant to form the (meth)acrylic adhesive. The Examiner has not shown that *Yang et al.* provides a broader disclosure.

To the extent that any surfactant remains unreacted after the formation of the (meth)acrylic polymer, a person of ordinary skill in the art would recognize that the two need to be separated and that the surfactant is not intended as an additional component for a later composition.[1] In fact, *Yang et al.* expressly teaches that the (meth)acrylic polymer must be separated from the resultant emulsion, which would retain any unreacted surfactant. Col. 6, lines 16-18, and Examples. This is not a mere disclosure of a preferred embodiment, rather it is the only embodiment. Moreover, this is a distinction that even *Engel et al.* (cited by the Examiner and discussed below)

[1] To the extent that the Examiner is arguing that the intermediate emulsion polymerization product, which comprises the polymer and possible unreacted surfactant, is Applicants' composition, Applicants direct the Examiner to M.P.E.P. §2144.09, discussing *In re Lalu*, 223 U.S.P.Q. 1257, 1260 (Fed. Cir. 1984), which dictates that obviousness cannot be based on such intermediate products.

recognized. *Engel* at ¶¶40-41. Thus, *Yang et al.* teaches that the useful product, *i.e.*, the polymer, must be separated from any unreacted surfactant.

Since *Yang et al.* merely discloses the use of surfactants in the manufacture of a single component and not for use as an independent component in a composition, *Yang et al.* does not render Applicants' rejected claims as obvious. Furthermore, there is no motivation to modify the teachings of *Yang et al.* so as to add a surfactant to the compositions disclosed. There is no suggestion of any benefits that may be obtained that would motivate a person of ordinary skill in the art to make the necessary change.

(3) YANG ET AL. FAILS TO TEACH OR SUGGEST THE WEIGHT PERCENTS OF N-BUTYL ACRYLATE.

Applicants submit maintain that *Yang et al.* fails to teach the weight percent limitations of independent claims 180 and 181 and all of the claims that depend therefrom. Specifically, claims 180 and 181 recite:

> (a) from about 30 to about 40 weight percent of units derived from at least one monomer chosen from n-butyl acrylate monomers,
>
> (b) from about 2 to about 10 weight percent of units derived from at least one monomer chosen from 2-hydroxy ethyl methacrylate monomers, and
>
> (c) from about 50 to about 70 weight percent of units derived from at least one monomer chosen from 2-ethyl hexyl acrylate monomers

In contrast, *Yang et al.* discloses the use of 50-90%, preferably 70-90% by weight n-butyl acrylate, and the use of 10-50%, preferably 10-30% by weight of a combination of monomers that may include 2-hydroxy ethyl methacrylate. Col. 3, lines 14-19. Yang et al. also teaches that additional monomers may optionally be included, such as 0-50%,

preferably 0-30% by weight alkylacrylate monomers. Col. 3, lines 25-34. One possible alkylacrylate is 2-ethyl hexyl acrylate. Col. 3, lines 30-34.

The Examiner has admitted that *Yang et al.* does not teach or suggest "from about 30 to about 40 weight percent of units derived from at least one monomer chosen from n-butyl acrylate monomers;" however, the Examiner maintained that it would have been obvious to a person of ordinary skill in the art to modify the weight percentages because of the effect on adhesion. Final Office Action at 5. Applicants respectfully disagree. There mere fact that an act is within the skill of a person of ordinary skill does not establish that there is a motivation to do so. M.P.E.P. § 2143.01 Nothing in *Yang et al.* suggests that it's ranges can be modified from those disclosed. M.P.E.P. § 2144.05

The Examiner has asserted that "it is within the skill of the artisan to modify the amounts of different monomers in a polymer that is an adhesive because of the expectation of increasing or decreasing the amounts of adhesion" Final Office Action at 5. Even assuming the Examiner's statement was supported in the record (and there is no cited evidence to that effect), the statement does not provide any motivation. There is no evidence that the reduction of the amount of n-butyl acrylate monomers will yield a product that has any known or expected advantages. If this were enough to establish obviousness, then there would be no basis for any patents directed to pressure sensitive adhesives.

(4) YANG ET AL. DOES NOT MOTIVATE A PERSON OF ORDINARY SKILL IN THE ART TO SELECT N-BUTYL ACRYLATE, 2-HYDROXY ETHYL (METH)ACRYLATE, AND 2-ETHYL HEXYL ACRYLATE MONOMERS.

Applicants admit that the presently claimed monomers are individually disclosed in *Yang et al.*; however, they are never in the same composition. The Examiner in response has asserted that is enough for *Yang et al.* to teach 2-ethyl hexyl acrylate is an optional copolymerizable monomer in the copolymer. Final Office Action at 5. Applicants respectfully disagree.

It is well established that the mere disclosure of each and every element in a single reference is not enough to establish obviousness; there must be motivation to combine those elements found in the prior art in the manner presented in the claims, otherwise the rejection is improper. M.P.E.P. § 2143.01. Applicants submit that the Examiner is improperly picking, choosing, and combining various disclosures within *Yang et al.* *In re Luvisi*, 144 U.S.P.Q. 646, 649-50 (C.C.P.A. 1965). "The examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed." *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998).

But for Applicants' disclosure, the Examiner has no basis to say that a person of ordinary skill in the art would select 2-ethyl hexyl acrylate. *Yang et al.* merely discloses the possible use of 2-ethyl hexyl acrylate among a list of nineteen optional monomers. *See* col. 2, lines 33-51. Nothing, not even a single example suggests the superiority of 2-ethyl hexyl acrylate over the other possible optional monomers. *In re Baird*, 28 U.S.P.Q.2d 1550, 1552 (Fed. Cir. 1994).

(5) YANG ET AL. FAILS TO TEACH OR SUGGEST A "RESHAPABLE EFFECT."

Applicants maintain that the reshapable effect limitation upon the claimed composition further distinguishes the claims over *Yang et al.* Here, the Examiner has asserted that "reshapable effect" is merely a use that is not given patentable weight because there are not structural differences between the claimed composition and the prior art. Final Office Action at 5.[2] Applicants submit that the Examiner is factually and legally incorrect.

The Examiner has cited no authority for this position and has not addressed Applicants' prior argument that this theory is inconsistent with the fact that functional limitations are a legitimate form of defining the patentable scope of the claims. M.P.E.P. § 2173.05(g), *compare* M.P.E.P. § 2114 (regarding apparatuses). Where the claim recites an intended use or property that is distinguishable over the prior art, an obviousness rejection may not be appropriate. *See In re Pearson*, 181 U.S.P.Q. 641, 644 (C.C.P.A. 1974). This has been particularly true in the art where polymers are concerned, such as in Applicants' claims. *E.I. Du Pont de Nemours & Co. v. Phillips Petroleum Co.*, 7 U.S.P.Q.2d 1129, 1133 (Fed. Cir. 1988) ("[o]n occasion, particularly with polymers, structure alone may be inadequate to define the invention, making it appropriate to define the invention in part by property limitations.").

[2] The Examiner has alleged that Applicants' mischaracterized the Examiner's statement. Final Office Action at 5. Applicants respectfully disagree in view of the fact that Applicants' directly quoted the rejection and identified M.P.E.P. sections that contradict the quoted statement.

Finally, it remains unclear whether the Examiner has additionally asserted an inherent disclosure of the functional limitation. To the extent the Examiner has, Applicants maintain the arguments of record.

Accordingly, since there is neither factual nor legal support to conclude that *Yang et al.* teaches or suggests each and every limitation of the present claims, as required for a *prima facie* case of obviousness, the rejection under Section 103(a) should be withdrawn. *See* M.P.E.P. § 2143.

(B) The Examiner has maintained the rejection of claims 167-169, 171, 172, 174, 175, 177, 178, 180-182, and 185-308 under 35 U.S.C. § 103(a) as obvious over U.S. Patent Application No. 2002/0058754 (*Engel et al.*) in view of *Yang et al.* for the reasons disclosed at pages 6-7 of the Final Office Action. Applicants respectfully traverse this rejection for at least the reasons of record and for the additional reasons set forth below.

Specifically, the Examiner has not and cannot establish, *inter alia*, that (1) the combination of *Engel et al.* and *Yang et al.* teach or suggest all of the claim limitations, or (2) a motivation exists to achieve the recited claim limitations. *See* M.P.E.P. §§ 2143.01 and 2143.03.

A. THE REFERENCES FAIL TO TEACH OR SUGGEST ALL OF THE CLAIM LIMITATIONS

(1) "A HAIR STYLING" COMPOSITION

Applicants submit that the preamble of claims 167-169, 171, 172, 174, 175, 177, 178, 180-182, and 185-308 is a limitation upon the scope of the claims that

distinguishes the claims over the prior art. As discussed above, *Yang et al.* merely teaches a pressure sensitive adhesive suitable for labels, decals, and the like. Col. 2, lines 20-32, col. 7, lines 16-20. Similarly, *Engel et al.* merely discloses pressure sensitive adhesives needing a backing for application to the skin. ¶¶10, 18, 55 (describing BIORE®-type product). Neither reference teaches or suggests a hair styling composition.

The Examiner has responded that the preamble has no patentable weight. Final Office Action at 6-7. Applicants submit that the preamble does have patentable weight for the reasons presented above and incorporated herein by reference.

(2) "AT LEAST ONE CONDITIONER"

Applicants submit that the Examiner has failed to establish that *Engel et al.* in view of *Yang et al.* expressly or inherently discloses "at least one conditioning agent," as required by claims 171, 172, 174, 175, 177, 178, and 210-283. The Examiner has relied upon *Engel et al.*, asserting that *Engel et al.* discloses moisturizers. Final Office Action at 7.

As defined in Applicants' specification, "the term 'conditioning agent' means any agent whose function is to improve the cosmetic properties of the hair, for example, the softness, ease of disentangling, feel, and lack of static electricity." Specification at ¶50. In contrast, *Engel et al.* discloses the use of "skin moisturizers" and "skin conditioning agents," which is consistent with its limited disclosure of products suitable for skin. Abstract, ¶9. Applicants submit that one of ordinary skill in the art would recognize the distinction between skin conditioning agents/moisturizers and hair conditioning agents. Vol. 2, INTERNATIONAL COSMETIC INGREDIENT DICTIONARY AND HANDBOOK, 1721, 1752,

1767 (8th ed. 2000) (courtesy copy enclosed). Accordingly, *Engel et al.*'s disclosure is inadequate to render the claims obvious.

(3) WEIGHT PERCENT LIMITATIONS OF N-BUTYL ACRYLATE, 2-HYDROXY ETHYL (METH)ACRYLATE, AND 2-ETHYL HEXYL ACRYLATE MONOMERS

Applicants maintain that neither *Engel et al.* nor *Yang et al.* teaches the weight percent limitations of independent claims 177, 178, 180, and 181 and all of the claims that depend therefrom. For the very same reasons discussed above and incorporated herein by reference, *Yang et al.* does not teach or suggest Applicants' limitation: "from about 30 to about 40 weight percent of units derived from at least one monomer chosen from n-butyl acrylate monomers." *Engel et al.* does not correct this deficiency, in view of the fact that *Engel et al.*'s only teaching for weight percentages is directed to the amount of vinyl monomers; at least 80 parts, based on 100 parts total monomer content. ¶33.

In response the Examiner has assert that it would have been obvious to a person of ordinary skill in the art to modify the weight percentages because of the effect on adhesion. Final Office Action at 5. As discussed above, the prerequisites for such an argument have not been addressed by the Examiner, and, thus, there is no established motivation to modify the teachings of the references. *See* M.P.E.P. §§ 2143.01 & 2144.05(II)(B).

(4) A "RESHAPABLE EFFECT"

Applicants maintain that the reshapable effect limitation upon the claimed composition further distinguishes the claims over over the combination of *Engel et al.* and *Yang et al.* As above, the Examiner has asserted that "reshapable effect" is merely

a use that is not given patentable weight because there are not structural differences between the claimed composition and the prior art. Final Office Action at 5. Applicants submit that the Examiner is factually and legally incorrect for the same reasons presented above and incorporated herein by reference.

Since there is neither factual nor legal support to conclude that *Engel et al.* in combination with *Yang et al.* teaches or suggests each and every limitation of the present claims, the rejection under Section 103(a) should be withdrawn. *See* M.P.E.P. § 2143.

B. THERE IS NO MOTIVATION IN THE REFERENCES TO DUPLICATE THE CLAIMS' SELECTION OF MONOMERS

As discussed above, Applicants admit that the presently claimed monomers are individually disclosed in *Yang et al.*; however, they are never in the same composition. In view of the Examiner's response, it is Applicants' understanding that the Examiner does not rely upon *Engel et al.* to establish this limitation. Accordingly, Applicants incorporate their arguments from above.

C. THERE IS NO MOTIVATION IN TO USE YANG ET AL.'S POLYMERS IN ENGEL ET AL.'S SKIN COMPOSITIONS

Applicants have argued that the Examiner must show that there was some motivation in the art for a person of ordinary skill in the art to combine *Yang et al.*'s polymers with *Engel et al.*'s skin compositions. *See*, M.P.E.P. § 2143.01. The Examiner asserts that it is enough that *Engel et al.* discloses the same monomers as *Yang et al.* (Final Office Action at 7) and that it would have been obvious to substitute one pressure sensitive adhesive for another pressure sensitive adhesive. September 10, 2003 Office Action at 7. Applicants respectfully disagree.

The mere fact that *Engel et al.* discloses the same classes of monomers, cannot be deemed a disclosure of the same polymers. The monomers at issue are well known in the art and used to create polymers of very diverse types and uses. Applicants submit that a person of ordinary skill in the art would not deem such a broad disclosure a basis for combining teachings. Moreover, the polymers of *Engel et al.* are not the same as the polymers of *Yang et al.* In contrast to *Yang et al.*, *Engel et al.* requires the use of an acid monomer and the use of metal oxide in the formation of the polymers. ¶32.

In addition, the M.P.E.P. has explained that "the mere fact that references can be combined . . . does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." M.P.E.P. § 2143.01. While the Examiner has suggested that water resistance and low haze of *Yang et al.*'s polymer is a motivation (9/10/03 Office Action at 7), the Examiner has yet to address the fact that there is no respective need in *Engel et al.* *Engel et al.* already teaches that its composition comprises hydrophobic coating, so there is no need for *Yang et al.*'s water resistance polymer. ¶¶55-58. Moreover, *Engel et al.* explains that it is desirable to have a nearly white adhesive and not a clear adhesive. ¶51. Hence, *Engel et al.* teaches away from the proposed combination for the very reason the Examiner has asserted is a motivation to combine.

In view of *Engel et al.*'s and *Yang et al.*'s deficiencies detailed above, claims 167-169, 171, 172, 174, 175, 177, 178, 180-182, and 185-308 are not rendered obvious. Applicants respectfully request withdrawal of this rejection.

IV. CONCLUSION

In view of the foregoing remarks, Applicants submit that this claimed invention is neither anticipated nor rendered obvious in view of the prior art references cited against this application. Applicants therefore request the Examiner's reconsideration of the application, and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Dated: October 4, 2004

By: _____
Anthony A. Hartmann
Reg. No. 43,662

Attachment: Vol. 2, INTERNATIONAL COSMETIC INGREDIENT DICTIONARY AND HANDBOOK, 1721, 1752, 1767 (8th ed. 2000)

International Cosmetic Ingredient Dictionary and Handbook

Eighth Edition
2000

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Section 4
Functions

Section 4, Functions, is a listing of cosmetic ingredients classified on the basis of the function each of them performs in finished cosmetic products. Many cosmetic ingredients have multiple functions in formulations and therefore are included in several function groupings. The use of an ingredient for functions other than those included here may be completely acceptable. Inclusion of an ingredient in a particular function category does not imply that the ingredient is "approved," "certified," or "endorsed" for this use by the CTFA or any other organization or governmental body in the U.S. or any other country.

The following Functions are associated with ingredients listed in this *Dictionary and Handbook*.

Abrasives
Absorbents
Antiacne Agents
Anticaking Agents
Anticaries Agents
Antidandruff Agents
Antifoaming Agents
Antifungal Agents
Antimicrobial Agents
Antioxidants
Antiperspirant Agents
Antistatic Agents
Binders
Buffering Agents
Bulking Agents
Chelating Agents
Colorants
Corn/Callus/Wart Removers
Corrosion Inhibitors
Cosmetic Astringents
Cosmetic Biocides
Denaturants
Deodorant Agents
Depilating Agents
Drug Astringents
Drug Astringents - Oral Health Care Drugs
Drug Astringents - Skin Protectant Drugs
Emulsion Stabilizers
Epilating Agents
External Analgesics
Film Formers
Flavoring Agents
Fragrance Ingredients
Hair Colorants
Hair Conditioning Agents
Hair Fixatives
Hair-Waving/Straightening Agents
Humectants
Lytic Agents
Nail Conditioning Agents
Opacifying Agents
Oral Care Agents
Oral Health Care Drugs
Oxidizing Agents
Pesticides
pH Adjusters
Plasticizers
Preservatives
Propellants
Reducing Agents
Skin Bleaching Agents
Skin-Conditioning Agents
Skin-Conditioning Agents - Emollient
Skin-Conditioning Agents - Humectant
Skin-Conditioning Agents - Miscellaneous
Skin-Conditioning Agents - Occlusive
Skin Protectants
Slip Modifiers
Solvents
Sunscreen Agents
Surface Modifiers
Surfactants
Surfactants - Cleansing Agents
Surfactants - Emulsifying Agents
Surfactants - Foam Boosters
Surfactants - Hydrotropes
Surfactants - Solubilizing Agents
Surfactants - Suspending Agents
Suspending Agents - Nonsurfactant
Ultraviolet Light Absorbers
Viscosity Controlling Agents
Viscosity Decreasing Agents
Viscosity Increasing Agents - Aqueous
Viscosity Increasing Agents - Nonaqueous

Henna
Hydroquinone
Hydroxyanthraquinoneaminopropyl Methyl Morpholinium Methosulfate
Hydroxybenzomorpholine
Hydroxyethylaminomethyl-p-Aminophenol HCl
2-Hydroxyethylamino-5-Nitroanisole
1-Hydroxyethyl 4,5-Diamino Pyrazole Sulfate
Hydroxyethyl-2,6-Dinitro-p-Anisidine
Hydroxyethyl-3,4-Methylenedioxyaniline HCl
Hydroxyethyl-2-Nitro-p-Toluidine
Hydroxyethyl-p-Phenylenediamine Sulfate
2-Hydroxyethyl Picramic Acid
6-Hydroxyindole
4-Hydroxypropylamino-3-Nitrophenol
Hydroxypropyl Bis(N-Hydroxyethyl-p-Phenylenediamine) HCl
Hydroxypyridinone
Isatin
N-Isopropyl 4,5-Diamino Pyrazole Sulfate
Lead Acetate
N-Methoxyethyl-p-Phenylenediamine HCl
2-Methoxymethyl-p-Aminophenol HCl
2-Methoxy-p-Phenylenediamine Sulfate
6-Methoxy-2,3-Pyridinediamine HCl
4-Methoxytoluene-2,5-Diamine HCl
3-Methylamino-4-Nitrophenoxyethanol
p-Methylaminophenol
p-Methylaminophenol Sulfate
4-Methylbenzyl 4,5-Diamino Pyrazole Sulfate
3,4-Methylenedioxyaniline
3,4-Methylenedioxyphenol
2-Methyl-5-Hydroxyethylaminophenol
2-Methyl-1-Naphthol
N-Methyl-3-Nitro-p-Phenylenediamine
2-Methylresorcinol
1,5-Naphthalenediol
1,7-Naphthalenediol
2,3-Naphthalenediol
2,7-Naphthalenediol
1-Naphthol
2-Naphthol
3-Nitro-4-Aminophenoxyethanol
3-Nitro-p-Cresol
2-Nitro-5-Glyceryl Methylaniline
4-Nitroguaiacol
3-Nitro-p-Hydroxyethylaminophenol
2-Nitro-N-Hydroxyethyl-p-Anisidine
Nitrophenol
4-Nitrophenyl Aminoethylurea
4-Nitro-o-Phenylenediamine Dihydrochloride
2-Nitro-p-Phenylenediamine Dihydrochloride
4-Nitro-o-Phenylenediamine HCl
4-Nitro-m-Phenylenediamine
4-Nitro-o-Phenylenediamine
2-Nitro-p-Phenylenediamine
4-Nitro-o-Phenylenediamine Sulfate
2-Nitro-p-Phenylenediamine Sulfate
6-Nitro-2,5-Pyridinediamine
6-Nitro-o-Toluidine
PEG-3 2,2'-Di-p-Phenylenediamine
p-Phenetidine
m-Phenylenediamine
m-Phenylenediamine Sulfate
p-Phenylenediamine
p-Phenylenediamine HCl
p-Phenylenediamine Sulfate
Phenyl Methyl Pyrazolone
N-Phenyl-p-Phenylenediamine
N-Phenyl-p-Phenylenediamine HCl
N-Phenyl-p-Phenylenediamine Sulfate
Phloroglucinol
Picramic Acid
Pigment Blue 15
Pigment Violet 23
Pigment Yellow 13
Pyrocatechol
Pyrogallol
Resorcinol
Sodium Picramate
Sodium Sulfanilate
Solvent Black 3
Solvent Black 5
Solvent Blue 35
Solvent Yellow 172
Tetraaminopyrimidine Sulfate
Tetrahydro-6-Nitroquinoxaline
Toluene-2,5-Diamine
Toluene-2,6-Diamine
Toluene-3,4-Diamine
Toluene-2,5-Diamine Sulfate
2,5,6-Triamino-4-Pyrimidinol Sulfate
1,2,4-Trihydroxybenzene

Hair Conditioning Agents

Hair Conditioning Agents are ingredients used to create special effects on hair. This group includes materials which enhance the appearance and feel of hair, increase hair body or suppleness, facilitate styling, improve gloss or sheen, or improve the texture of hair that has been damaged by chemical or physical action. These desirable effects are created by the use of lubricious or substantive ingredients. Other ingredients used to condition hair are listed as *Antistatic Agents*. Antistatic agents are materials that alter the static electrical properties of hair.

Acetamide MEA
Acetamidoethoxybutyl Trimonium Chloride
Acetylated Lanolin
Acetylated Lanolin Alcohol
Acetyl Dipeptide-1 Cetyl Ester
Acetylmethionyl Methylsilanol Elastinate
Acrylates/Carbamate Copolymer
Alanine
Albumen
Almondamidopropalkonium Chloride
Almondamidopropyl Betaine
Aluminum Capryloyl Hydrolyzed Collagen
Aluminum Undecylenoyl Collagen Amino Acids
Amino Bispropyl Dimethicone
Aminopropyl Dimethicone
Aminopropyl Laurylglutamine
Ammonium Caseinate
Ammonium Hydrolyzed Collagen
Ammonium Lauroyl Sarcosinate
Amodimethicone
Amodimethicone/Dimethicone Copolyol
Amodimethicone Hydroxystearate
AMP-Isostearoyl Gelatin/Keratin Amino Acids/Lysine Hydroxypropyltrimonium Chloride
AMP-Isostearoyl Hydrolyzed Collagen
AMP-Isostearoyl Hydrolyzed Elastin
AMP-Isostearoyl Hydrolyzed Soy Protein
AMP-Isostearoyl Hydrolyzed Wheat Protein
AMPD-Isostearoyl Hydrolyzed Collagen
AMPD-Rosin Hydrolyzed Collagen
Apricotamidopropyl Betaine
Apricotamidopropyl Ethyldimonium Ethosulfate
Argemone Mexicana Oil
Arginine
Arginine Aspartate
Asparagine
Aspartic Acid
Atelocollagen
Avena Sativa (Oat) Kernel Protein
Avocadamidopropyl Betaine
Babassuamide DEA
Babassuamidopropalkonium Chloride
Babassuamidopropylamine Oxide
Babassuamidopropyl Betaine
Beer
Behenamide DEA
Behenamide MEA
Behenamidopropyl Betaine
Behenamidopropyl Dimethylamine Behenate
Behenamidopropyl Dimethylamine Lactate
Behenamidopropyl Ethyldimonium Ethosulfate
Behenamidopropyl PG-Dimonium Chloride
Behenoyl PG-Trimonium Chloride
Behentrimonium Chloride
Behentrimonium Dimethicone Copolyol Phosphate
Behentrimonium Methosulfate
Behenyl Betaine

Hydrochlorofluorocarbon 142b
Hydrofluorocarbon 152a
Hydrofluorocarbon 134a
Hydrofluorocarbon 227ea
Isobutane
Isopentane
Nitrogen
Nitrous Oxide
Pentane
Propane

Reducing Agents

Reducing Agents are chemicals which during their reaction with oxidizing agents lose electrons. Reducing agents commonly contribute hydrogen to other substances. They can be used as *Antioxidants* since they scavenge oxygen. Finally, reducing agents have the ability to split disulfide bonds in hair and, therefore, find use as *Hair Waving/ Straightening Agents* and *Depilating Agents*.

Ammonium Bisulfite
Ammonium Sulfite
Ammonium Thioglycolate
Ammonium Thiolactate
Cysteamine HCl
Cysteine
Cysteine HCl
Dithiothreitol
Ethanolamine Thioglycolate
Glutathione
Glyceryl Thiopropionate
Hydroquinone
p-Hydroxyanisole
Isooctyl Thioglycolate
Magnesium Thioglycolate
Mercaptopropionic Acid
Potassium Metabisulfite
Potassium Sulfite
Potassium Thioglycolate
Sodium Bisulfite
Sodium Hydrosulfite
Sodium Hydroxymethane Sulfonate
Sodium Metabisulfite
Sodium Sulfite
Sodium Thioglycolate
Strontium Thioglycolate
Superoxide Dismutase
Thioglycerin
Thioglycolic Acid
Thiolactic Acid
Thiosalicylic Acid
Zinc Formaldehyde Sulfoxylate

Skin Bleaching Agents

Skin Bleaching Agents are active ingredients used in skin bleaching products. In the U.S., in a proposed rule published by the U.S. Food and Drug Administration, "Skin Bleaching Drug Products for Over-the-Counter Human Use" (47 Fed. Reg. 39108, September 3, 1982), a skin bleaching agent is defined as "an agent designed to bleach or otherwise lighten limited areas of hyperpigmented skin through the suppression of melanin pigment formation within skin cells."

In the EU and other countries, skin bleaching products are considered to be cosmetics, and are controlled under cosmetic regulations which may not require pre-clearance or pre-market approval of active ingredients. In Japan, skin bleaching agents may be regarded as drugs subject to pre-approval requirements.

The listing below includes those ingredients reported to be safe and effective for use in U.S. over-the-counter (OTC) drug products as well as those identified by suppliers as skin bleaching agents. These ingredients may also have a cosmetic purpose in cosmetic formulations.

To identify the currently allowed skin bleaching agents in the U.S., or for information on ingredient use limitations, etc., the reader is directed to contact the U.S. Food and Drug Administration for the most recent information concerning this drug category.

The U.S. approved drug ingredients are identified below with a star prefix. Whenever the U.S. drug name differs from the INCI name, the U.S. drug name is presented parenthetically.

*Hydroquinone
Triticum Vulgare (Wheat) Germ Extract

Skin-Conditioning Agents

A large number of cosmetic ingredients function as skin conditioning agents. In order to define the specific function performed by these ingredients more precisely, they have been divided into four groups: *Skin Conditioning Agents -*

Ammonium Benzoate
Ammonium Propionate
Benzisothiazolinone
Benzoic Acid
Benzotriazole
Benzyl Alcohol
Benzylhemiformal
Benzylparaben
5-Bromo-5-Nitro-1,3-Dioxane
2-Bromo-2-Nitropropane-1,3-Diol
Butyl Benzoate
Butylparaben
Calcium Benzoate
Calcium Paraben
Calcium Propionate
Calcium Salicylate
Calcium Sorbate
Captan
Chloramine T
Chlorhexidine Diacetate
Chlorhexidine Digluconate
Chlorhexidine Dihydrochloride
Chloroacetamide
Chlorobutanol
p-Chloro-m-Cresol
Chlorophene
p-Chlorophenol
Chlorothymol
Chloroxylenol
Citrus Grandis (Grapefruit) Fruit Extract
Citrus Grandis (Grapefruit) Seed Extract
Copper Usnate
m-Cresol
o-Cresol
p-Cresol
DEDM Hydantoin
DEDM Hydantoin Dilaurate
Dehydroacetic Acid
Diazolidinyl Urea
Dibromopropamidine Diisethionate
Dimethyl Hydroxymethyl Pyrazole
Dimethylol Ethylene Thiourea
Dimethyl Oxazolidine
Dithiomethylbenzamide
DMDM Hydantoin
DMHF
Domiphen Bromide
Ethyl Ferulate
Ethylparaben
Ferulic Acid
Formaldehyde
Glutaral
Glycerol Formal
Glyoxal
Hexamidine
Hexamidine Diparaben
Hexamidine Paraben
4-Hydroxybenzoic Acid
Hydroxymethyl Dioxoazabicyclooctane
Imidazolidinyl Urea
Iodopropynyl Butylcarbamate
Isobutylparaben
Isodecylparaben
Isopropyl Cresols
Isopropylparaben
Isopropyl Sorbate
Magnesium Benzoate
Magnesium Propionate
Magnesium Salicylate
MDM Hydantoin
MEA-Benzoate
MEA o-Phenylphenate
MEA-Salicylate
Methylchloroisothiazolinone
Methyldibromo Glutaronitrile
Methylisothiazolinone
Methylparaben
Mixed Cresols
Nisin
PEG-5 DEDM Hydantoin
PEG-15 DEDM Hydantoin
PEG-5 DEDM Hydantoin Oleate
PEG-15 DEDM Hydantoin Stearate
Phenethyl Alcohol
Phenol
Phenoxyethanol
Phenoxyethylparaben
Phenoxyisopropanol
Phenyl Benzoate
Phenyl Mercuric Acetate
Phenyl Mercuric Benzoate
Phenyl Mercuric Borate
Phenyl Mercuric Bromide
Phenyl Mercuric Chloride
Phenylparaben
o-Phenylphenol
Polyaminopropyl Biguanide
Polyaminopropyl Biguanide Stearate
Polymethoxy Bicyclic Oxazolidine
Polyquaternium-42
Potassium Benzoate
Potassium Butylparaben
Potassium Ethylparaben
Potassium Methylparaben
Potassium Paraben
Potassium Phenoxide
Potassium o-Phenylphenate
Potassium Propionate
Potassium Propylparaben
Potassium Salicylate
Potassium Sorbate
Propionic Acid
Propyl Benzoate
Propylparaben
Quaternium-8
Quaternium-14
Quaternium-15
Silver Borosilicate
Silver Magnesium Aluminum Phosphate
Sodium Benzoate
Sodium Butylparaben
Sodium p-Chloro-m-Cresol
Sodium Dehydroacetate
Sodium Ethylparaben
Sodium Formate
Sodium Hydroxymethane Sulfonate
Sodium Hydroxymethylglycinate
Sodium Isobutylparaben
Sodium Methylparaben
Sodium Paraben
Sodium Phenolsulfonate
Sodium Phenoxide
Sodium o-Phenylphenate
Sodium Propionate
Sodium Propylparaben
Sodium Pyrithione
Sodium Salicylate
Sodium Sorbate
Sorbic Acid
TEA-Sorbate
Thimerosal
Triclocarban
Triclosan
Undecylenoyl PEG-5 Paraben
Zinc Pyrithione

Propellants

Propellants are chemicals used for expelling products from pressurized containers (aerosols). The functionality of a propellant depends on its vapor pressure at ambient temperature and its compressibility. Liquids or gases can be used as propellants as long as the pressure developed within the container is safely below the container's bursting pressure under normal storage and use conditions.

Butane
Carbon Dioxide
Dimethyl Carbonate
Dimethyl Ether
Ethane
Hydrochlorofluorocarbon 22